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| 09/810,249 | 03/19/2001 | Jurgen Otterbach | Q63479 | 8372 |

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| EXAMINER | |
|--------------------|--------------|
| PIZARRO, RICARDO M | |
| ART UNIT | PAPER NUMBER |
| 2661 | |

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/810,249

Applicant(s)

OTTERBACH ET AL.

Examiner

Ricardo M. Pizarro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/19/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 10 is/are rejected.
- 7) ☒ Claim(s) 2 and 4-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Drawings

1. The drawings are objected to because they do not include proper labeling of the elements shown and it suggested to applicant to label them as follows : i.e. modulator for element 7, demodulator for elements 12 and 15, transmitter for element 1, receiver for element 3, correlator for elements 13 and 16, and so on. Element 10 in Fig. 1 has not been properly disclosed in the specification. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. Claims 1-10 are objected to because of the following informalities and it is suggested to applicant:

In all claims delete the numbers in parenthesis for better reading of the claims

In claim 1 line 2 replace "in particular " with -wherein-, in line 9 replace "suitable" with -used-, in line 11 and line 13 delete the first occurrence of "the".

In claim 2 line 3 delete both occurrence of "the".

In claim 3 line 2 replace "in particular" with -wherein', in line 11 replace "suitable" with -used-, in line 13 delete the first occurrence of "the", in line 14 insert "another" before -synchronization-, in line 15 delete the first occurrence of "the".

In claim 4 line 4 insert "coded" before -synchronization-, in line 5 replace "one" with -a first-, in line 6 replace "the" with -an-, in line 7 replace "the other" with -a second-, in line 8 insert "another" before -incoming-, in line 9 replace "one" with -the first-.

In claim 5 line 3 replace "which" with -said delay-, in line 4 replace "suitable" with -used-. In claim 8 line 3 replace "the " with -a-.

In claim 10 line 2 and lines 5-6 replace "in particular" with -wherein-, in line 15 delete "the", in line 17 insert "coded" before -synchronization-

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukasawa in view of Molev-Shteiman.

US patent 5,715,521 (Fukasawa et al) discloses a method for controlling synchronization signal power in a communication system comprising a Transmitting device (First station in Fig 1, col 2 lines 40-45) for a multipoint-to-point network, in particular a synchronous multipoint-to-point CDMA network (CDMA scheme, col 2 line 44), containing a first unit (element 7 in Fig. 1) for generating a coded communications signal, in particular a CDMA-coded communications signal (data signal B generated by element 7), and a second unit (element 10 in Fig. 1) for generating a coded synchronization signal characterized in that the second unit is suitable for generating a synchronization signal with a signal level which is lower than the signal level of the communications signal (synchronization Signal A produced by element 10 in Fig. 1 lower than other signal, col 2 lines 54-55) and a modulator is provided, as in claim 1; Transmitting device, characterized in that the synchronization signal is sent in the same transmission channel and/or in the same frequency range as the communications signal, as in claim 2.

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Fukasawa did not specifically disclose said being used to used to modulate the coded signal, in particular using alternating multiplication by +1 and -1, as in claim 1..

However US patent No 6,301,288 (Molev-Shteiman) discloses a Method of chip interleaving in a CDMA system, comprising a transmitting device including a modulator that multiplies a coded signal by alternating +1 and -1 (col 3 lines 41-47, col 4 lines 5, col 4 lines 9-11 and 21-27) as in claim 1.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to provide the multiplying means as disclosed by Molev-Shteiman to the system disclosed by Fukasawa with the motivation of obtaining a CDMA system that provides reduced interference caused by transmission of synchronization signals.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukasawa in view of Burns.

US patent 5,715,521 (Fukasawa et al) discloses a method for controlling synchronization signal power in a communication system comprising a Receiving device for a multipoint-to-point network (Device 2 in Fig.1) , in particular a synchronous multipoint-to-point CDMA network, containing a first unit for receiving and detecting a communications signal (Device 15 In Fig. 1, col 3 lines 8-12), in particular a CDMA-coded communications signal , and a second unit for receiving and detecting a coded synchronization signal (replica of first chip thereby obtaining signal synchronization A, col 4 lines 3-5), characterized in that the second unit contains a demodulator(demodulator 15) suitable for demodulating and detecting a synchronization signal, as in claim 3.

Fukasawa did not specifically disclose series circuit of a demodulator and a correlator and is suitable for demodulating and detecting a synchronization signal with a signal level which is lower than the signal level of the communications signal and/or a synchronization signal which is coded using a code which differs from the code of the communications signal, as in claim 3.

However US patent No. 6,611,512 (Burns) discloses an apparatus for scheduling correlation operations of a CDMA system comprising a receiver that includes a circuit of a demodulator (Demodulator 3 in Fig. 2) and a correlator (correlator 200 in Fig. 2) and is suitable for demodulating and detecting a synchronization signal which is coded using a code which differs from the code of the communications signal (col 7 lines 16-25), as in claim 3.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to provide the circuit means as disclosed by Burns to the CDMA system disclosed by Fukasawa with the motivation of obtaining a method for scheduling operations of a CDMA Receiver.

✓ 5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukasawa in view of Burns.

US patent 5,715,521 (Fukasawa et al) discloses a method for controlling synchronization signal power in a communication system comprising a Synchronization procedure for a multipoint-to-point network , in particular a synchronous multipoint-to-point CDMA network, containing at least a stations and an exchange (station 1 and 2 in Fig.1, receiver 2 being considered as the receiver at the exchange) , the terminal station transmitting communications signals, in particular CDMA-coded communications signal (data signal B generated by element 7) , and synchronization signal for locking on to the exchange (Signal A transmitted by element

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10) , characterized in that for locking on each terminal station transmits to the exchange at least two modulated, coded synchronization signals consecutively in time, which is coded with a code which differs from the code of the communications signal, as in claim 10.

Fukasawa did not specifically disclose the exchange (Receiver included in the exchange) detecting the synchronization signals by demodulation and subsequent correlation .

However US patent No. 6,611,512 (Burns) discloses an apparatus for scheduling correlation operations of a CDMA system comprising a receiver that includes a circuit of a demodulator (Demodulator 3 in Fig. 2) and a correlator (correlator 200 in Fig. 2) and is suitable for demodulating and detecting a synchronization signal which is coded using a code which differs from the code of the communications signal (col 7 lines 16-25), as in claim 10.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to provide the circuit means as disclosed by Burns to the CDMA system disclosed by Fukasawa with the motivation of obtaining a method for scheduling operations of a CDMA Receiver.

Allowable Subject Matter

6. Claims 2, 4-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. Please also notice objection to claims under 37 CFR 1.75

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- US patent No. 6,775,317 (okota0 discloses method for spread communications and transmitter and receiver of the same.
- US patent No. 6,353,604 (Grimwood et al) discloses an Apparatus for synchronization of a DCMA upstream.
- US patent no. 6,7000,881 (Kong et al) discloses a rate control device for a CDMA system.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

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or faxed to:

(703) 872-9306

(for formal communications intended for entry, for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to 220 South 20th Street, Crystal Plaza Two, Lobby, Room 1B03, Arlington, Va 22202 (Customer Window).

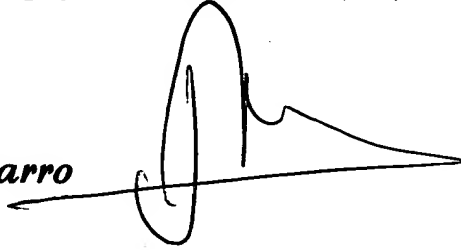
Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ricardo Pizarro** whose telephone number is (571) 272-3077. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:30 PM. The fax number for this Group is (703) 872-9306.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Kenneth Vanderpuye** can be reached on (571) 272-3078.

October 15, 2004

Ricardo M. Pizarro

A handwritten signature in black ink, consisting of a large, stylized capital 'R' followed by a horizontal line that extends to the right and then curves back up to meet the 'R'.